



**Figure S1** Identification of the candidate prognostic immune-related genes. (A) Venn diagram to identify the common immune-related genes in the TCGA and GSE70770 cohorts; (B) the regression coefficients of six hub immune-related genes based on the step-wise multivariate Cox’s analysis.

**Table S1** The individual HR and P value of 39 immune-related genes in the TCGA dataset according to the univariate Cox’s analysis

ID	HR	HR.95L	HR.95H	P value
TGFB2	0.42708	0.191306	0.953432	0.037862
DPP4	0.23281	0.097197	0.557638	0.001074
CDK6	0.149373	0.061495	0.362833	2.68E-05
SOD1	317.5978	1.209557	83392.86	0.042672
GLMN	38.54605	2.66657	557.1944	0.00737
JAG2	19.95717	2.540245	156.7915	0.004422
<i>SCIN</i>	0.28306	0.130213	0.615323	0.001444
TNFRSF4	3.778192	1.253386	11.38894	0.018219
APLN	3.098408	1.155949	8.304977	0.024573
TAZ	298.5792	21.55416	4136.072	2.14E-05
IFITM2	18.4038	1.561187	216.9502	0.020676
ANXA11	0.001027	3.04E-05	0.034741	0.000128
<i>THY1</i>	7.040337	1.591029	31.15363	0.010113
HDAC7	101.8181	2.921243	3548.81	0.010722
VTN	2.140595	1.033689	4.432808	0.040445
SEMA3C	0.13419	0.04845	0.371664	0.000111
<i>TBX1</i>	3.408151	1.155886	10.049	0.026246
TCF7	0.24632	0.073607	0.824295	0.022996
LTB4R	11.55419	2.866285	46.57573	0.000581
C2	0.137101	0.043855	0.428609	0.000634
POU2F2	0.13759	0.033967	0.557342	0.005453
IFI6	4.727716	1.062073	21.04498	0.041449
TREM2	7.267333	1.752814	30.13105	0.006268
DMBT1	0.254605	0.083137	0.779721	0.016589
RFX1	22.85753	1.329324	393.0321	0.031075
FCGR3B	0.321115	0.113371	0.909539	0.03248
HRH2	0.345915	0.141123	0.847894	0.020305
<i>NOTCH4</i>	8.838301	1.738605	44.93004	0.008623
IFITM3	40.09343	1.837964	874.6001	0.018927
MR1	0.281967	0.098429	0.80774	0.018394
<i>MAL</i>	0.241944	0.08877	0.659423	0.005539
BLNK	0.142822	0.034461	0.591926	0.0073
MADCAM1	4.463989	1.217414	16.36847	0.024025
<i>BNIP3L</i>	0.032574	0.002548	0.416418	0.008444
IL31RA	0.200838	0.067398	0.598471	0.003958
TRAF2	70.48369	2.574432	1929.727	0.011737
LTF	0.641518	0.412332	0.998091	0.049018
INHA	21.77129	6.368357	74.42876	9.02E-07
SART1	230.0323	1.205395	43898.36	0.042389

Italic ID indicate that the genes are candidate.

**Table S2** The individual HR and P value of 29 immune-related genes in the GSE70770 dataset according to the univariate Cox's analysis

ID	HR	HR.95L	HR.95H	P value
ANXA11	6.64E-05	4.34E-08	0.101519	0.010129861
APOA1	5.03E+08	46.00215	5.5E+15	0.015394713
BCAR1	2.86E-06	2.55E-10	0.0321	0.007302514
BNIP3	3.69E-05	4.30E-08	0.031681	0.003060305
<i>BNIP3L</i>	0.003247	1.06E-05	0.993626	0.049744588
C2	0.001285	1.50E-05	0.110186	0.003378015
CD276	7954.55	1.386208	45645999	0.041959825
CD79B	2.09E-06	8.12E-11	0.053814	0.011605038
CDK6	0.01913	0.001313	0.278674	0.003793904
CHUK	5.96E-05	1.37E-08	0.260445	0.022932327
CXCL13	0.002251	1.37E-05	0.370275	0.019204061
DPP4	0.056733	0.005577	0.577094	0.015330703
FCGRT	747.5088	3.590495	155624.6	0.015129004
HAMP	9.27E-07	5.22E-10	0.001644	0.000273126
IL6ST	4.79E-07	4.20E-13	0.544654	0.04081911
MADCAM1	9.93E+11	8.158414	1.21E+23	0.0339101
MAFB	253.7712	1.755904	36676.17	0.029122244
<i>MAL</i>	0.000689	3.20E-06	0.148253	0.007896253
MBP	0.000254	7.04E-07	0.091466	0.005847227
MLF1	54481.75	23.49861	1.26E+08	0.005806979
MMP9	0.045893	0.002969	0.709438	0.027406092
<i>NOTCH4</i>	248801.9	123.8624	5E+08	0.001365132
POU2AF1	7.51E-10	7.33E-16	0.000769	0.002926535
S1PR4	3.72E-05	4.94E-09	0.281013	0.025181618
SCG2	7.482214	1.093579	51.19295	0.040253725
<i>SCIN</i>	0.139569	0.019794	0.984131	0.048153013
<i>TBX1</i>	7468.459	6.030822	9248801	0.014108295
<i>THY1</i>	67.63122	1.327771	3444.857	0.035611906
TNFSF13	1.30E-06	2.94E-12	0.573864	0.040983306

Italic ID indicate that the genes are candidate.

**Table S3** The regression coefficients and HR of six hub immune-related genes

ID	Coefficient	HR
SCIN	-0.92247	0.397535
THY1	2.54278	12.715
TBX1	1.13792	3.120277
NOTCH4	1.45694	4.292792
MAL	-1.45727	0.232871
BNIP3L	-3.29561	0.037045